

Electronic Commerce

Lecture 0

IT392
Overview

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What is E-commerce?

- E-commerce is all about the sale and purchase of products/services through digital sales channels.
- So, in a regular store, we are looking for a specific product on the shelf or something that may interest us, and only then can we make a purchase.
- And for sale in an online store, website pages serve as shelves, where you can evaluate the product externally, read useful information, identify its characteristics, and find out the price.

What is E-commerce?

- Companies are increasingly creating separate sites for their products, but some prefer to list everything on third-party online marketplaces.
- After evaluating the product they like, the user can add it to their cart and purchase it by choosing the most convenient payment and delivery method.
- In other words, while studying **E-commerce**, you will not only begin to understand how to arrange goods on the “shelves” of Internet pages but also understand the principles of operation, optimization rules, sales features, how to sell correctly, and much more about Internet marketing in general.

What is E-Commerce

The Importance of Learning E-commerce

- Studying **E-commerce** is an opportunity to get an excellent job and understand online business processes in your own company. According to research, by 2040, about *95% of purchases will be made through eCommerce*. Impressive, isn't it?



What you should know

- How an Online Business Works?
- What Technologies are Required in the Work?
- Where to Start When Entering Online Platforms?
- How Consumer Habits Have Changed?
- The Role of Technology in Business
- Market Dynamics

What you should know

- How you can Reduce your Business Costs?
- Ways to Manage Clients
- How Consumers can be Influenced?
- Features of Work Worldwide
- Rules for Presenting your Own Product.

Chapter 1

Chapter 1: Introduction to E-commerce

Introduction to E-commerce

- What is E-commerce? - The Difference between E-commerce and E-Business
- Technological Building Blocks Underlying E-commerce: The Internet, the Web, and the Mobile Platform - Major Trends in E-commerce

Unique Features of E-commerce Technology

- Ubiquity - Global Reach - Universal Standards - Richness - Interactivity - Information Density - Personalization and Customization - Social Technology

Chapter 1: Introduction to E-commerce

Types of E-commerce

- Business-to-Consumer (B2C) E-commerce
- Business-to-Business (B2B) E-commerce
- Consumer-to-Consumer (C2C) E-commerce
- Mobile E-commerce (M-commerce)
- Social E-commerce
- Local E-commerce

Chapter 1: Introduction to E-commerce

E-commerce: A Brief History

- E-commerce 1995–2000: Invention
- E-commerce 2001–2006: Consolidation
- E-commerce 2007–Present: Reinvention

Chapter 2

Chapter 2: E-commerce Business Models and Concepts

E-commerce Business Models

- Eight Key Elements of a Business Model

Major Business-to-Consumer (B2C) Business Models

- Online Retailer (E-tailer) - Community Provider - Content Provider - Portal - Transaction Broker - Market Creator - Service Provider

Chapter 2: E-commerce Business Models and Concepts

Major Business-to-Business (B2B) Business Models

- E-distributor - E-procurement – Exchanges - Industry Consortia - Private B2B Networks

How E-commerce Changes Business: Strategy, Structure, and Process

- Industry Structure - Industry Value Chain - Value Chains - Firm Value Webs
Business Strategy - E-commerce Technology and Business Model Disruption

Chapter 3

Chapter 3: E-commerce Infrastructure: The Internet, The Web, and The Mobile Platform

The Internet: Technology Background

- The Evolution of the Internet - Key Technology Concepts - The Mobile Platform - The Internet “Cloud Computing” Model: Hardware and Software as a Service

Internet Infrastructure and Access

- The Internet Backbone - Internet Exchange Points - Tier 3 Internet Service Providers - Mobile Internet Access -The Internet of Things -Who Governs the Internet?

Chapter 3: E-commerce Infrastructure: The Internet, The Web, and The Mobile Platform

The Web

- Hypertext - Markup Languages - Web Servers and Clients - Web Browsers

The Internet and Web: Features and Services

- Communication Tools - Search Engines - Downloadable and Streaming Media - Web 2.0 Applications and Services - Web3 - Virtual Reality, Augmented Reality, and the Metaverse - Intelligent Digital Assistants

Mobile Apps

- Platforms for Mobile Application Development - App Marketplaces

Chapter 4

Chapter 4: Building an E-commerce Presence: Websites, Mobile Sites, and Apps

Imagine Your E-commerce Presence

- What's The Idea? (The Visioning Process)
- Where's the Money: Business and Revenue Model
- Who And Where Is The Target Audience?
- What Is The Ballpark? Characterize The Marketplace
- Where's The Content Coming From?
- Know Yourself: Conduct a SWOT Analysis
- Develop an E-commerce Presence Map
- Develop a Timeline: Milestones
- How Much Will This Cost?

Chapter 4: Building an E-commerce Presence: Websites, Mobile Sites, and Apps

Choosing Software

- Simple versus Multi-tiered Website Architecture - Web Server Software - Application Servers - E-commerce Merchant Server Software

Choosing Hardware

- Right-sizing Your Hardware Platform: The Demand Side -The Supply Side

Other E-commerce Site Tools

- Website Design: Basic Business Considerations - Tools for Search Engine Optimization - Tools for Interactivity and Active Content - Personalization/Customization Tools -The Information Policy Set

Chapter 4: Building an E-commerce Presence: Websites, Mobile Sites, and Apps

Developing a Mobile Website and Building Mobile Applications

- Planning and Building a Mobile Presence -
- Mobile Presence: Design Considerations
- Cross-Platform Mobile App Development Tools
- Mobile Presence: Performance and Cost Considerations

Chapter 5

Chapter 5: E-commerce Security and Payment Systems

The E-commerce Security Environment

- The Scope of the Problem - What is Good E-commerce Security? -Dimensions of E-commerce Security - The Tension Between Security and Other Values
- *Security Threats in the E-commerce Environment*
- Malicious Code - Potentially Unwanted Programs - Phishing - Hacking, Cybervandalism, and Hacktivism - Data Breaches - Credit Card Fraud/Theft - Identity Fraud - Spoofing, Pharming, and Spam (Junk) Websites - Sniffing and Man-in-the-Middle Attacks -Denial of Service (DoS) and Distributed Denial of Service (DDoS) Attacks - Insider Attacks - Poorly Designed Software - Social Network Security Issues - Mobile Platform Security Issues - Cloud Security Issues -Internet of Things Security Issues -Metaverse Security Issues.

Chapter 5: E-commerce Security and Payment Systems

Technology Solutions

- Protecting Internet Communications - Encryption - Securing Channels of Communication - Protecting Networks - Protecting Servers and Clients.

E-commerce Payment Systems

- Online Credit Card Transactions - Alternative Online Payment Systems - Mobile Payment Systems: Your Smartphone Wallet - Blockchain and Cryptocurrencies.

Chapter 6

Chapter 6: E-commerce Marketing and Advertising Concepts

Consumers Online: The Online Audience and Consumer Behavior

- The Online Consumer Profile - Consumer Behavior Models - The Online Purchasing Decision - Shoppers: Browsers and Buyers - Intentional Acts: How Shoppers Find Vendors Online - Why Some People Don't Shop Online: Trust, Utility, and Opportunism in Online Markets

Chapter 6: E-commerce Marketing and Advertising Concepts

Digital Commerce Marketing and Advertising Strategies and Tools

- Strategic Issues and Questions - The Website as a Marketing Platform: Establishing the Customer Relationship - Traditional Online Marketing and Advertising Tools - Social, Mobile, and Local Marketing and Advertising - Multi-Channel Marketing: Integrating Online and Offline Marketing - Other Online Marketing Strategies.

Chapter 6: E-commerce Marketing and Advertising Concepts

Online Marketing Technologies

- The Revolution in Online Marketing Technologies - Web Transaction Logs - Supplementing the Logs: Cookies and Other Tracking Files - Databases, Data Warehouses, Data Mining, and Big Data - Marketing Automation and Customer Relationship Management (CRM) Systems.

Understanding the Costs and Benefits of Online Marketing Communications

- Online Marketing Metrics: Lexicon - How Well Does Online Advertising Work? - The Costs of Online Advertising - Marketing Analytics: Software for Measuring Online Marketing Results.

Chapter 7

Chapter 7: Social, Mobile, and Local Marketing

Introduction to Social, Mobile, and Local Marketing

- From Eyeballs to Conversations - From the Desktop to the Smartphone and Tablet - The Social, Mobile, Local Nexus

Social Marketing

- Social Marketing Players - The Social Marketing Process - Measuring Social Marketing Results - Facebook Marketing - Instagram Marketing - TikTok Marketing - Twitter Marketing - Pinterest Marketing - Marketing on Other Social Networks: Snapchat and LinkedIn - The Downside of Social Marketing

Chapter 7: Social, Mobile, and Local Marketing

Mobile Marketing

- M-commerce Today - Mobile Marketing - The Technology: Basic Mobile Device Features - Mobile Marketing Tools: Ad Formats

Local and Location-Based Mobile Marketing

- The Growth of Local Marketing - The Growth of Location-Based (Local) Mobile Marketing - Location-Based Marketing Platforms - Location-Based Mobile Marketing: The Technologies - Why Is Location-Based Mobile Marketing Attractive to Marketers? - Location-Based Marketing Tools - Measuring Location-Based Marketing Results

Chapter 8

Understanding Ethical, Social, and Political Issues in E-commerce

- A Model for Organizing the Issues - Basic Ethical Concepts: Responsibility, Accountability, Liability, and Due Process - Analyzing Ethical Dilemmas - Ethical Principles

Privacy and Information Rights

- What Is Privacy? - Privacy in the Public Sector: Privacy Rights of Citizens - Privacy in the Private Sector: Privacy Rights of Consumers - Limitations on the Right to Privacy: Law Enforcement and Surveillance

Intellectual Property Rights

- Types of Intellectual Property Protection - Copyright - Patents - Trademarks - Trade Secrets

Governance

- Can the Internet Be Controlled? - Taxation - Net Neutrality - Antitrust, Monopoly, and Market Competition in the Internet Era

Chapter 9

Chapter 9: Online Retail and Services

Analyzing the Viability of Online Firms

- Strategic Analysis - Financial Analysis

E-commerce in Action: Online Retail Business Models

- Virtual Merchants - Amazon - Omnichannel Merchants: Bricks-and-Clicks - Manufacturer-Direct - Catalog Merchants

Online Financial Services

- Fintech - Online Banking - Online Brokerage - Online Mortgage and Lending Services - Online Insurance Services - Online Real Estate Services

Chapter 9: Online Retail and Services

Online Travel Services

- Why Are Online Travel Services So Popular? - The Online Travel Market - Online Travel Industry Dynamics

Online Job Recruitment and Career Services

On-Demand Service Companies

Chapter 10

Chapter10: Online Content and Media

Online Content

- Content Audience: Where Are the Eyeballs? - Content Market: Entertainment and Media Industry Revenues - Online Content: Consumption, Revenue Models, and Revenue -Digital Rights Management (DRM) and Walled Gardens- Media Industry Structure - Media Convergence: Technology, Content, and Industry Structure

The Online Publishing Industry

- Online Newspapers - Magazines Rebound on the Digital Platform - E-books and Online Book Publishing

Chapter10: Online Content and Media

The Online Entertainment Industry

- Home Entertainment: Television and Movies - Audio Entertainment: Music and Podcasts – Games.

Creators and User-Generated Content

Reference

